(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 11 November 2004 (11.11.2004)

PCT

(10) International Publication Number WO 2004/096845 A3

(51) International Patent Classification7: C07K 14/435. A61K 38/17, A61P 25/28

(21) International Application Number:

PCT/EP2004/004807

(22) International Filing Date: 29 April 2004 (29.04.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 03101202.4

30 April 2003 (30.04.2003)

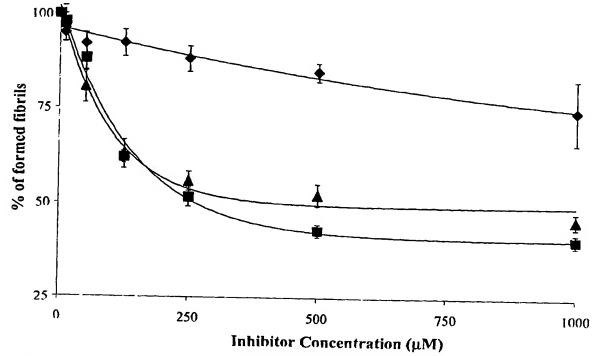
- (71) Applicant (for all designated States except US): AP-PLIED RESEARCH SYSTEMS ARS HOLDING N.V. [NL/NL]; Pietermaai 15, NL-Curação (AN).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BARBERO, Luca [IT/IT]; V. Dei Cappuccini, 6/A, I-10034 Chivasso (IT). ESPOSITO, Pierandrea [IT/IT]; Via Lago S. Michele,

12/B, I-10015 Ivrea (IT). TRAVERSA, Silvio [IT/IT]; Regione Mulini, 74, I-10010 Palazzo Canavese (IT).

- (74) Agent: SERONO INTERNATIONAL S.A.; Intellectual Property, 12, chemin des Aulx, CH-1228 Plan-Les-Ouates (CH).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

[Continued on next page]

(54) Title: BETA-AMYLOID INHIBITORS AND USE THEREOF



(57) Abstract: Peptides and derivatives or analogs thereof are provided for having β -amyloid aggregation inhibitory activity, useful in the treatment and prevention of diseases such as Alzheimer's disease, Dementia pugilistica (including head trauma), Hereditary Cerebral Haemorrhage with amyloidosis of the Dutch type (HCHWA-D) and vascular dementia with amyloid angiopathy.

WO 2004/096845 A3



SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 6 January 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Internal al Application No
PCT/EP2004/004807

A CLASS	SIFICATION OF SUBJECT MATTER								
ÎPC 7	C07K14/435 A61K38/17 A61P25	5/28							
According	to International Patent Classification (IPC) or to both national class	illostion and IDC							
	SEARCHED	Sincadon and IPC							
Minimum documentation searched (classification system followed by classification symbols)									
IPC 7	C07K A61K A61P	Canon symbols)							
Documenta	ation searched other than minimum documentation to the extent th	at such documents are includ	ed in the fields searched						
Electronic o	data base consulted during the international search (name of data	base and where practical s	garch torms used)						
EPO-In	ternal, Sequence Search, BIOSIS, E	MBASE, WPI Data	,						
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT								
Category °	Citation of document, with indication, where appropriate, of the	relevant passages	Relevant to claim No.						
Α	WO 00/63246 A (GOUR BARBARA J; TECHNOLOGIES INC (CA); BLASCHUK (C) 26 October 2000 (2000-10-26 page 14; claims 1-35,39								
Α	WO 01/07473 A (STOTT KELVIN) 1 February 2001 (2001-02-01)								
	cited in the application * the entire document, in parti 4,30 and 31 *								
Α	WO 00/29427 A (CYCLACEL LTD ;FI PETER (GB); ZHELEV NIKOLAI (GB) 25 May 2000 (2000-05-25) page 4 - page 5; claims 1-46; ta								
		-/	·						
		-/							
			•						
	ner documents are listed in the continuation of box C.	X Patent family men	nbers are listed in annex.						
	tegories of cited documents :	"T" later document publish	ed after the International filing date						
CONSIG	nt defining the general state of the art which is not ered to be of particular relevance	ot in conflict with the application but the principle or theory underlying the							
ming de		"X" document of particular	relevance: the claimed invention						
	nt which may throw doubts on priority claim(s) or s cited to establish the publication date of another	involve an inventive s	novel or cannot be considered to tep when the document is taken alone						
"O" docume	or other special reason (as specified) In referring to an oral disclosure, use, exhibition or	cannot de considered	relevance; the claimed invention to involve an inventive step when the d with one or more other such docu-						
"P" docume	neans nt published prior to the international filing date but an the priority date claimed	In the art.	tion being obvious to a person skilled						
	ctual completion of the international search	"&" document member of the la	ne same patent family nternational search report						
14	October 2004		29/10/2004						
Name and m	ailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2	Authorized officer							
	NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Vogt, T							

INTERNATIONAL SEARCH REPORT

Internal Application No
PCT/EP2004/004807

0/0: ::		PCT/EP2004/004807
	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
4	WO 02/062989 A (SEQUITUR INC) 15 August 2002 (2002-08-15) page 23; claim 42	
١ .	FR 2 829 940 A (SYNT EM) 28 March 2003 (2003-03-28) page 1 - page.3	
	US 6 399 584 B1 (ARPIN MONIQUE ET AL) 4 June 2002 (2002-06-04) column 1 - column 2; example 5	
		•
		·
		·

INTERNATIONAL SEARCH REPORT

ormation on patent family members

Intermal Application No PCT/EP2004/004807

			PC1/EP2004/004807			
Patent documented in search	report	Publication date		Patent family member(s)		Publication date
WO 006324	6 д	26-10-2000	US AU WO US	6303576 4478900 0063246 6677116	A A2	16-10-2001 02-11-2000 26-10-2000 13-01-2004
WO 010747	3 A	01-02-2001	AU AU CA EP WO JP NZ	766992 6173700 2378779 1203019 0107473 2003505469 516441	A A1 A1 A1 T	30-10-2003 13-02-2001 01-02-2001 08-05-2002 01-02-2001 12-02-2003 28-11-2003
WO 002942	7 A	25-05-2000	AU AU CA CZ EP WO GB HU JP US	2350919 20011671 1135410 0029427 2346616 0204199	A1 A3 A2 A2 A2 A ,B A2 T	16-10-2003 05-06-2000 25-05-2000 17-10-2001 26-09-2001 25-05-2000 16-08-2000 28-03-2003 17-09-2002
WO 0206298	39 A	15-08-2002	WO US	02062989 2003031655	A2 A1	15-08-2002 13-02-2003
FR 2829940) A	28-03-2003	FR WO	2829940 03026700		28-03-2003 03-04-2003
US 6399584	4 B1	04-06-2002	AT AU DE DE WO EP US	218881 3600199 69901805 69901805 9947150 1061941 2002115633	A D1 T2 A2 A2	15-06-2002 11-10-1999 18-07-2002 06-03-2003 23-09-1999 27-12-2000 22-08-2002